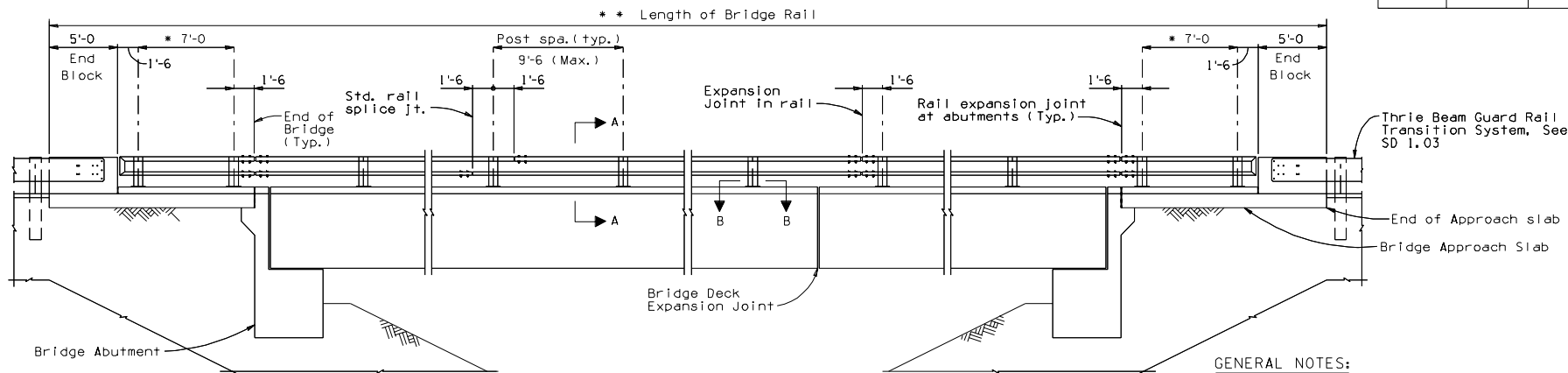
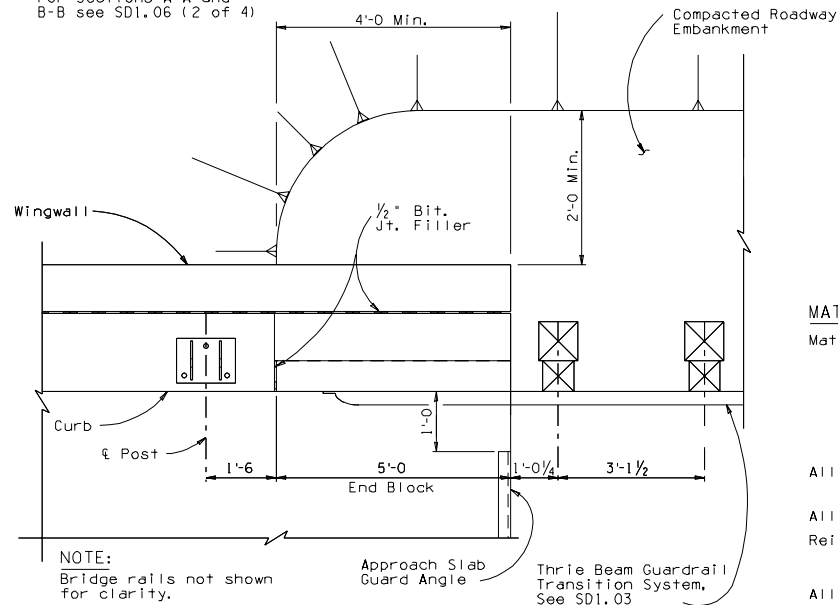


F.H.R.A. REGION	STATE	PROJECT NO.	SHEET NO.	TOTAL SHEETS	AS BUILT
9	ARIZ.				



**NOTE:**  
For Sections A-A and B-B see SD1.06 (2 of 4)



**NOTE:**  
Bridge rails not shown for clarity.

Approach Slab Guard Angle  
Three Beam Guardrail Transition System, See SD1.03

**PLAN - END BLOCK AT GUARDRAIL TRANSITION**

Scale:  $\frac{3}{4}'' = 1'-0''$

**GENERAL NOTES:**

Construction: Arizona Department of Transportation Standard Specifications for Road and Bridge Construction, 1990 Edition.

Design: AASHTO LRFD Bridge Design Specifications, Second Edition, 1998 with 1999 Interim Revisions. Customary US units. This barrier has been successfully crash tested and documented in the Texas Transportation Institute Report 'Wyoming Test Level 4 Bridge Railing' Project No. 472610, January 1996.

This barrier is structurally evaluated as meeting the requirements of NCHRP Report 350, Test Level 4.

All posts shall be vertical.

Panel lengths of rail shall be continuous and attached to a minimum of two posts.

Rail splices shall be located at expansion joints and shall be constructed as detailed.

For spacing of rail posts, lengths of bridge rail, approach slab and guard rail transitions, see project drawings.

Dimensions shall not be scaled from drawings.

Welding of the bridge rail components shall meet the requirements American Welding Society ANSI/AASHTO/AWS Bridge Welding Code, D1.5-96.

Pay item includes all labor and materials for steel rail assembly, concrete curb and end blocks.

Item No. 6011134  
TWO TUBE BRIDGE RAIL  
Measure: Linear Foot.

**MATERIALS:**

Materials for metal bridge rail assembly shall be as follows:  
Steel: All anchor plates and post construction shall be ASTM A36. Rail tubing shall be ASTM A500 Grade B. Steel shall be galvanized after fabrication in accordance with ASTM A123.  
Bolts: Anchor bolts, studs, nuts and washers shall be ASTM A325.

All exposed portions of the assembly shall be galvanized in accordance with ASTM A123.

All Concrete shall be Class "S" ( $f'c = 4500$  psi).

Reinforcing steel shall conform to ASTM Specification A615. All reinforcing shall be furnished as Grade 60.

All bends and hooks shall meet the requirements of AASHTO LRFD Bridge Design Specifications, Article 5.10.2. All bend dimensions for reinforcing steel shall be out-to-out of bars. All placement dimensions for reinforcing steel shall be to center of bars unless noted otherwise.

DESIGN APPROVED <i>Shafiq H. Hasan</i>		ARIZONA DEPARTMENT OF TRANSPORTATION INTERMODAL TRANSPORTATION DIVISION <b>BRIDGE GROUP STRUCTURE DETAIL</b>	
APPROVED FOR DISTRIBUTION <i>James J. Davis</i>		TWO TUBE BRIDGE RAIL	
ROUTE	LOCATION	DRAWING NO. SD 1.06(1 of 4)	
TRACS NO.		___ OF ___	